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**DMS-7210****Composite Material Posts and Blocks for Metal Beam Guard Fence****Effective Date: January 2021**

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**1. DESCRIPTION**

This Specification governs the material requirements for composite material posts and blocks for use with metal beam guard fence. It also outlines the qualification procedures to produce these materials for Department projects.

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**2. UNITS OF MEASUREMENTS**

The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. Use each system of units separately. Combining values from the two systems may result in nonconformance with the standard.

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**3. MATERIAL PRODUCER LIST**

The **Materials and Tests Division (MTD)** maintains the Material Producer List (MPL) of all materials conforming to the requirements of this Specification. Materials appearing on the MPL, entitled "Composite Material Posts and Blocks for Metal Beam Guard Fence," require no further sampling and testing before use, unless deemed necessary by the Project Engineer or **MTD**.

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**4. BIDDERS' AND SUPPLIERS' REQUIREMENTS**

The Department will only purchase or allow on projects those products listed by producer and product code or designation shown on the MPL.

Use of pre-qualified product does not relieve the Contractor of the responsibility to provide product that meets this Specification. The Department may inspect or test material at any time and reject any material that does not meet the specifications.

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**5. PRE-QUALIFICATION PROCEDURE**

- 5.1. **Pre-Qualification Request.** Submit a request for evaluation under DMS-7210 to [DMS\\_Prequal@txdot.gov](mailto:DMS_Prequal@txdot.gov).

Include the following information in the request:

- company name;
- physical and mailing addresses;
- contact person, phone number, and email address.

- 5.2. **Pre-Qualification Sample.** Submit a minimum of at least one sample to the Texas Department of Transportation, **MTD** (CP51), 9500 North Lake Creek Parkway, Austin, TX 78717.

Include the following with the sample:

- current safety data sheet (SDS) that complies with OSHA Hazard Communication Standard 29 CFR 1910.1200;
- all the documentations and certifications described in 7210.6 for each type of post and block; and
- a drawing detailing the basic dimensions for each type of post and block.

Submit all materials for pre-qualification at no cost to the Department.

5.3. **Evaluation.** MTD will notify prospective bidders and suppliers after completion of material evaluation.

5.3.1. **Qualification.** If approved for Department use, MTD will add the material to the MPL.

Report changes in the composition or in the manufacturing process of any material to MTD. Significant changes reported by the producer, as determined by the Director of MTD, may require a re-evaluation of performance. The Department reserves the right to conduct whatever tests it deems necessary to identify a pre-qualified material and determine if there is a change in the composition, manufacturing process, or quality that may affect its durability or performance. In case of variance, the Department's tests will govern.

5.3.2. **Failure.** Producers not qualified under this Specification may not furnish materials for use on Department projects.

Producers failing to qualify may submit a request for re-evaluation. In the request for re-evaluation, document the cause of the issue and corrective action taken.

The Department normally bears the costs of sampling and testing; however, the producer will bear the costs associated with materials failing to conform to the requirements of this Specification. The Director of MTD will assess this cost at the time of testing, and amounts due will be billed to the producer.

5.4. **Periodic Evaluation.** The Department reserves the right to conduct random sampling and testing of pre-qualified materials to verify performance and Specification compliance and to perform random audits of documentation. Department representatives may sample material from the manufacturing plant, the project site, and the warehouse.

5.5. Failure of materials to comply with the requirements of this Specification as a result of periodic evaluation may be cause for removal of those materials from the MPL. In case of variance, the Department's tests will govern.

5.6. **Disqualification.** Causes for disqualification and removal from the MPL may include, but are not limited to:

- falsification of documentation,
- producer fails to report any change in material composition or manufacturing process to MTD,
- material fails to meet the requirements of this Specification as a result of periodic evaluation, or
- producer has unpaid charges for failing samples.

MTD will remove disqualified producers from the MPL and will not allow submission of material for re-qualification for 6 mo., or as determined by Director of MTD.

5.7. **Re-Qualification.** Once the disqualification period established by MTD has elapsed, producers disqualified and removed from the MPL may begin the re-qualification process by submitting a request in accordance with Section 5.1, including additional documentation identifying the cause of the problem and corrective action taken. The re-qualification process will then follow all subsequent Sections of Article 5.

The Department normally bears the costs of sampling and testing; however, the disqualified producer will bear the costs associated with re-qualification. The Director of MTD will assess this cost at the time of re-evaluation, and amounts due will be billed to the producer.

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**6. MATERIAL REQUIREMENTS**

6.1. Provide the following for composite material posts and blocks material compliance:

- documentation, in the form of an eligibility letter from the Federal Highway Administration, stating that the material meets the requirements of the National Cooperative Highway Research Program (NCHRP) Report 350 Test Level 3 (TL-3) design speed category or AASHTO Manual for Assessing Safety Hardware (MASH) (2009 or 2016 version) Test Level 3 (TL-3) design speed category;
- certification from the producer or supplier stating the material composition. Provide material containing a minimum of 60% recycled material comprised of any combination of recycled polyethylene, polypropylene, polyvinyl chloride, tire cord, or rubber (natural or styrene butadiene rubber); and
- certification from the producer or supplier stating that the material is thermal and process stabilized to prevent ultra-violet degradation.

6.2. **Dimensions.**

6.2.1. **Blocks.** Fabricate composite material to the following dimensions:

- a 6 × 8-in. cross-section  $\pm 1/4$  in., less any routing, notching, or finishing (proposed variations in the dimensions will be reviewed and may be approved on a case by case basis);
- the plan length  $\pm 1/4$  in.; and
- with bolt holes positioned within 1/4 in. in any direction from the plan location.